

REMARKS

Reconsideration and allowance in view of the foregoing amendments and the following remarks are respectfully requested.

Claims 17-30 remain pending in the present application. No amendments have been made to the claims in this Response.

Claims 17, 18, 20-22, 24, 25, and 30 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,660,170 to Rajan et al. ("the '170 patent"). In addition, claims 19 and 26 stand rejected under 35 U.S.C. § 103 as being unpatentable over the '170 patent in view of U.S. Patent No. 5,551,419 to Froehlich et al. ("the '419 patent"). Applicant respectfully traverses these rejections for the reasons presented below.

Independent claim 17 recites a pressure support system that determines an average intrinsic positive end-expiratory pressure based on an output of the monitoring means. Claim 17 further recites that the flow of gas delivered to the subject during at least a portion of an expiratory phase of a breathing cycle substantially corresponds to the average intrinsic positive end-expiratory pressure. Applicant respectfully submits that the '170 patent does not teach or suggest controlling the gas delivered during at least a portion of an expiratory phase of a breathing cycle in this manner.

The '170 patent teaches providing a flow of gas *during inspiration* so that the pressure at the end of the inspiration phase has a peak inspiratory pressure (PIP) level. The '170 patent further teaches providing the flow of gas *during expiration* so that the pressure at the end of the expiration phase has a positive end expiratory pressure (PEEP) level. See column 6, lines 27-20, and FIG. 2 of the '170 patent. This references, however, is does not teach or suggest determining the PEEP level based on an average intrinsic positive end-expiratory pressure.

The '170 patent explains that during expiration "[n]ormally, PEEP is lower than 20 cmH₂O when determining the optimal opening pressure.... Both PEEP and PIP, however, could be selected from pressures outside the mentioned limits if necessary for opening a collapsed lung." Column 6, lines 32-39, of the '170 patent. This teaching, however, falls short

of suggesting that PEEP is determined based on an average intrinsic positive end-expiratory pressure.

The '170 patent also explains that "[a]fter the opening pressure has been determined, several inspiration pulses having a start pressure equal to or higher than 35 the determined opening pressure are delivered to the patient.... The P_{aO_2} is then measured and if the measured P_{aO_2} does not exceed a predetermined threshold, the determined opening pressure P indicated in FIG. 4 is not high enough to achieve a sufficient opening of the lungs. A different inspiration pulse or series of inspiration pulses will then be delivered to the patient 4. The new inspiration pulse may, for instance, have a higher PEEP or a higher PIP (or both). These values can be selected based on the previously determined opening pressure." (emphasis added). Column 7, lines 1-14, of the '170 patent. This passage teaches selecting a new PEEP level based on a previously determined opening pressure, which is the pressure at which the alveoli opened, not based on the average intrinsic positive end-expiratory pressure.

The '170 patent further explains that "[a]nother way of determining the optimal opening pressure is to deliver a sequence of inspiration pulses, all being different as to selected PEEP, PIP, t_i , t_e or frequency." Column 7, lines 34-36, of the '170 patent. Again, this portion of the '170 patent does not teach or suggest setting the PEEP level based on an average intrinsic positive end-expiratory pressure.

Because the '170 patent lacks any teaching or suggestion of setting the PEEP level based on an average intrinsic positive end-expiratory pressure, as recited in independent claim 17, this reference fails to anticipate or render obvious the claimed invention. The additional citation of the '419 patent is provided to teach features recited in dependent claims 19 and 26. While applicant does not admit that this reference teaches the limitations of these claims, applicant respectfully submits that this reference fails to provide the elements of claim 1 missing from the '170 patent. Thus, the combination of the cited references, even if possible, fails to teach or suggest the invention of claim 17.

Independent claim 30 is a method claims that is generally similar to that of independent apparatus claim 17. Thus, the distinctions between claim 1 and the cited references, are equally applicable to claim 30.

For the reasons presented above, applicant respectfully submits that independent claims 17 and 30 are not anticipated or rendered obvious by the cited references. In addition, claims 18, 20-22, 24, and 25 are also not anticipated or rendered obvious due to their dependency from independent claim 17. Accordingly, applicant respectfully requests that the above rejection of claim 17, 18, 20-22, 24, 25, and 30 be withdrawn.

This response is being filed within the three-month statutory response period which expires on December 10, 2007. In addition, no additional claim fees are believed to be required as a result of the above amendments to the claims. Nevertheless, the Commissioner is authorized to charge any fee required under 37 C.F.R. §§ 1.16 or 1.17 to deposit account no. 50-0558.

All objections and rejections have been addressed. It is respectfully submitted that the present application is in condition for allowance and a Notice to the effect is earnestly solicited.

Respectfully submitted,

By: 

Michael W. Haas
Reg. No.: 35,174
Tel. No.: (724) 387-5026
Fax No.: (724) 387-5021

RESPIRONICS, INC.
1010 Murry Ridge Lane
Murrysville, PA 15668-8525

Note: The Commissioner is authorized to charge any fee required under 37 C.F.R. §§ 1.16 or 1.17 to deposit account no. 50-0558.